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FOREST SURVEY RELEASE NO. 12

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REPORT

FOREST STATISTICS

NEZ PERCE COUNTY, IDAHO

FROM THE INVENTORY PHASE OF THE FOREST SURVEY



U. S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

NORTHERN ROCKY MOUNTAIN
FOREST AND RANGE EXPERIMENT STATION

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Forest Statistics for Nez Perce County, Idaho

From the Inventory Phase of the Forest Survey

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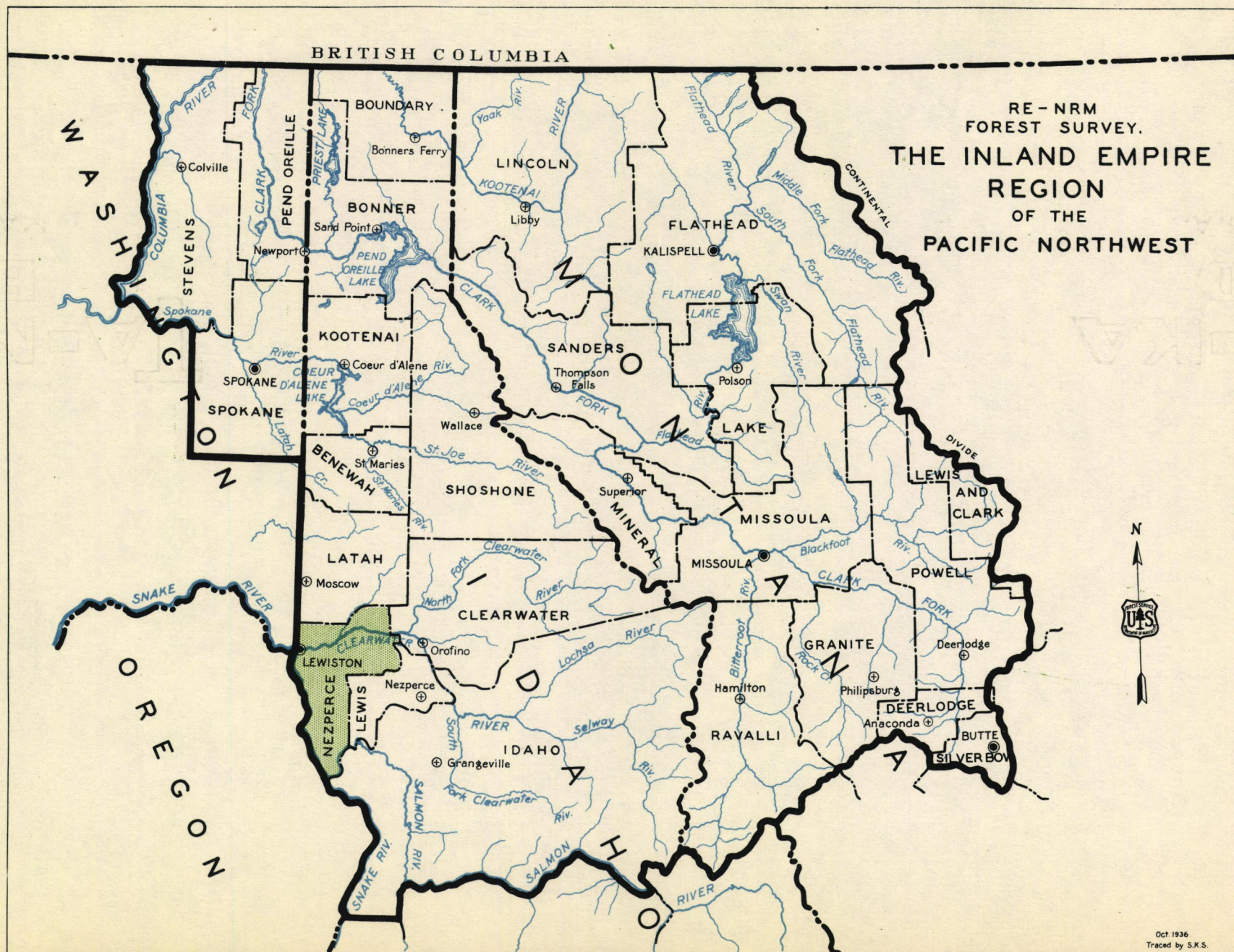
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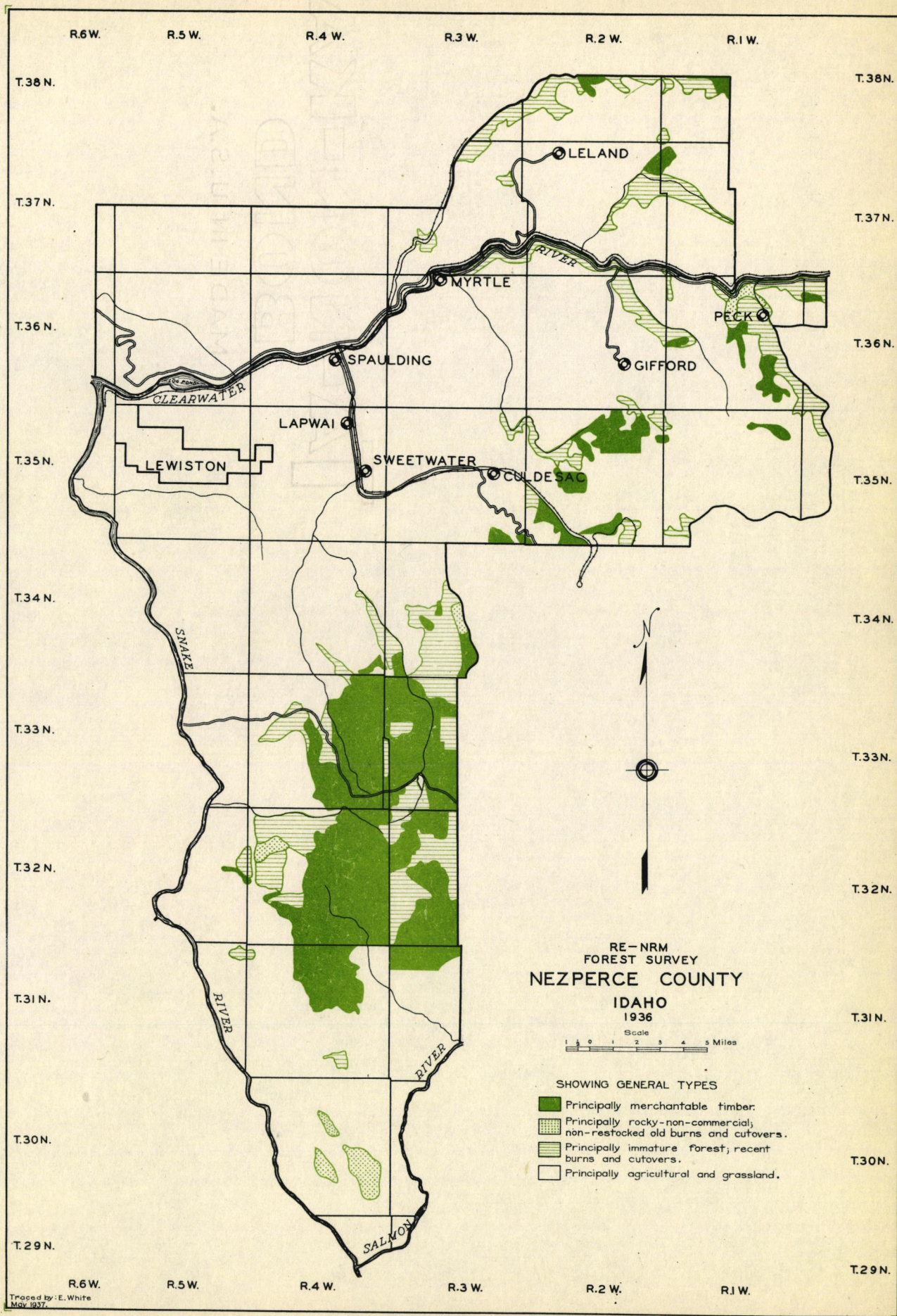
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FOREST STATISTICS FOR NEZ PERCE COUNTY, IDAHO

Foreword

The welfare of Nez Perce County, situated in Idaho's verdant panhandle, rests, to a great extent, upon the forests and forest industry. In this, the principal outlet and manufacturing center for the largest remaining body of white pine timber in the United States, lumber is one of the most valuable products, and lumber manufacturing is a major source of income. This lumber industry is based upon a forest resource lying entirely outside of the county. Nevertheless, within this county, which is primarily agricultural from a land utilization standpoint, more than one-fifth of the total area, 110 thousand acres, is classified as forest land (figure 1). Although not supporting any large lumber industry, these local stands have been the principal source of the timber products needed in agricultural expansion.

Thus, in the general forest situation of Nez Perce County, there are two separate aspects measured in entirely different terms.

This report has been prepared by the Forest Survey Division of the Northern Rocky Mountain Forest and Range Experiment Station. It is one in a series of such reports intended to present a comprehensive picture of the forest situation of the Northern Rocky Mountain Region.

GENERAL CLASSIFICATION OF LAND
NEZ PERCE COUNTY, IDAHO

Figure 1.

DEFORESTED AND ROCKY
NONCOMMERCIAL AREAS

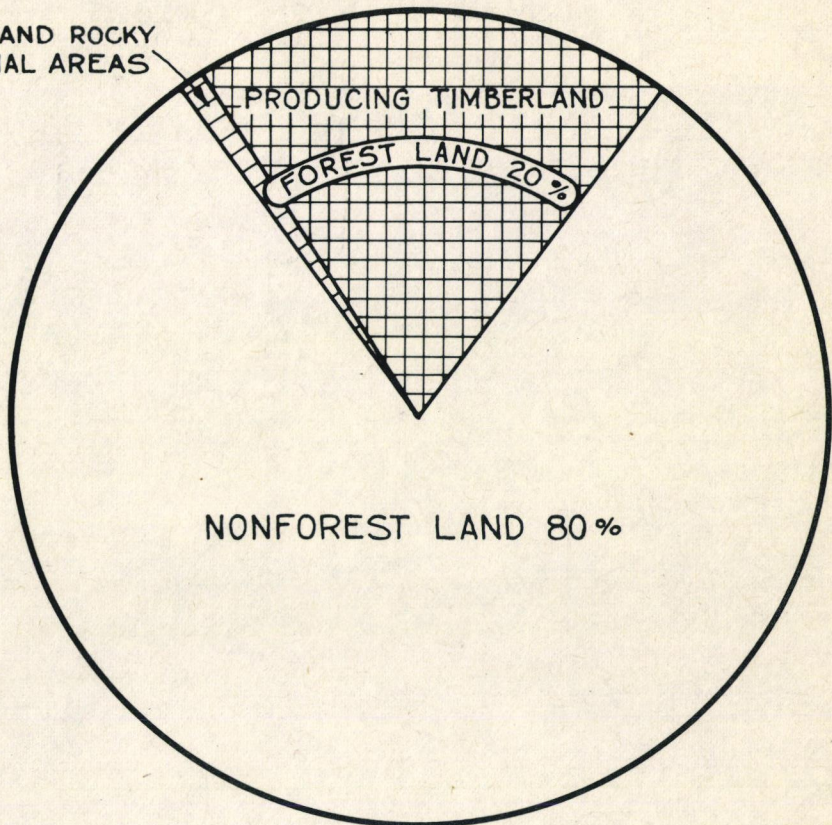


Table 1.

| <u>NONFOREST LAND</u> | | <u>Area in Acres</u> |
|------------------------------|--|----------------------|
| Townsites | | 2,289 |
| Cultivated and Stump Pasture | | 258,751 |
| Grassland | | 166,896 |
| Barrens | | 148 |
| Total | | 428,084 |
| <u>FOREST LAND</u> | | |
| Timberland | | |
| Producing | | 104,238 |
| Deforested | | 482 |
| Total | | 104,720 |
| Rocky Noncommercial Areas | | 4,900 |
| Total Forest Land | | 109,620 |
| <u>GROSS LAND AREA</u> | | 537,704 |

General

Situated along the state line, adjoining Washington and Oregon, Nez Perce County is one of the more populous sections of northern Idaho. In 1930 the population was 17,591, which is approximately 21 persons for each of the 840 square miles, total area. The majority of these residents are concentrated in Lewiston and its suburbs. The population of that city is listed as 9,403 by the 1930 census. It is the only community of any size as none of the several small incorporated towns have more than a few hundred residents.

The drainage of this area is furnished by the Salmon River on the south, the Snake River on the west, and the Clearwater River on the north and east. The topography is striking. The low lying areas in the vicinity of Lewiston (738 feet above sea level) and along the three rivers afford a contrast to the plateau lands several thousand feet higher. In general, the change in elevation between the two extremes is rapid, resulting in steep grassy "breaks" and deep tributary canyons. Farms are distributed generally through the county but the forest lands are found principally upon the plateaus (see map).

History of Lumber Industry^{1/}

Until recent years the lumber industry in Nez Perce County has been very small and comparatively insignificant,

^{1/} For the early history of the Nez Perce County lumber industry the Forest Survey is indebted to C. T. Stranahan of Lewiston, Idaho.

but what it has lacked in size it has made up in historical interest. This county holds the distinction of being the cradle, almost 100 years ago, of north Idaho's second largest industry. On April 1, 1840, the Reverend H. H. Spalding, a Presbyterian missionary to the Nez Perce Indians, set in operation near the present community of Spalding, a tiny water-driven sawmill to cut lumber for his mission. Little else is known about this pioneer plant which was apparently the first in the Idaho panhandle by two decades.

The demand for timber products in Nez Perce County began with settlement in the vicinity of Lewiston in the early 60's. Logs for the construction of the first log buildings, including a good size hotel, were rafted down the Clearwater River. However, until 1873 lumber used in this community was hauled from Walla Walla, Washington, some 100 miles distant. In that year a sawmill to serve the needs of this town was built about 60 miles above Lewiston at the mouth of Elk Creek on the north fork of the Clearwater River. This was an overshot waterwheel mill built by L. R. Chapman. The lumber from the mill was transported to Lewiston by raft, consequently being well soaked upon arrival. Lewiston's first mill, built by Snell and Monteith in 1879, began operations in 1880. A second was set up two and one-half miles above town by a man named Porter in 1885, to be followed by another at the east city limits in 1890. This last, known as the Harrington mill, was larger than the other two. These three mills,

none producing over one million feet of lumber annually, represented Lewiston's lumber manufacturing industry for a number of years.

Practically the entire volume of logs sawed in the vicinity of Lewiston came from Clearwater County. From 1880 until 1895 the majority were brought down the river in drives. This was a very risky enterprise, however, as the high waters occasionally swept them past their intended destinations. The losses from this factor were climaxed in November 1895 when many logs were carried on into the Snake River, forcing a discontinuance of river driving in favor of rafting. The cost of the latter method was high and after several years all three mills ceased operation. Later they were destroyed by fire. In 1882 the Federal Government built a turbine combination saw and gristmill near the old Spalding mill site for its own use and also for the Indians who brought down 3 or 4 small rafts from the upper Clearwater each year until 1897, when the mill was dismantled and sold. From 1897 or 98 until the construction of the large mill at Lewiston in 1927 there were no sawmills anywhere along the Clearwater River in this county.

With the opening of the Nez Perce Indian Reservation in 1895, the country began a period of rapid agricultural expansion which was marked by the construction of a number of mills adjacent to the various bodies of timber within the county. Little is known of these early plants save the fact that they were small, as have been their successors.

The lumber cut from all has been primarily for local consumption. There were four such concerns operating in 1925 and two in 1936.

The industrial picture has changed decidedly in Nez Perce County since the construction of the world's largest white pine mill at Lewiston by the Clearwater Timber Company, now a branch of Potlatch Forests Incorporated. Employing a large force of men in woods and mill, this plant is the largest lumber producer in the Inland Empire. The first logs were sawed in 1927 with full production being reached in 1928. The largest cut in the county to date, including the small output of other mills, was 174 million board feet in 1929 and the lowest since 1928 was 53 million board feet in 1933. The 1936 lumber production was 134 million board feet. Between 1928 and 1936 inclusive, the lumber sawed yearly averaged 113 million board feet, lumber tally. This is in marked contrast to the production prior to that time. Lumber cut figures available for 1915, 1920, and 1925 show a yearly average of less than one-half million board feet. It is probable that the production rate was considerably higher during the first ten years of the century when agricultural expansion was rapid and before the large Craig Mountain mill was constructed at Winchester in Lewis County.

As in the case of the old Lewiston mills, the logs for the large sawmill have come from outside the county. With the exception of 31 million board feet log scale obtained

from Latah County in 1932, all of these logs have been hauled by train or driven by water from Clearwater County. The average yearly log production in Nez Perce County between 1928 and 1936 inclusive, has been only 296 thousand board feet, lumber tally, or about one-fourth of one percent of the sawmill requirements during the same period.

Forest Stands

Principally situated in the southern half of the county (see map), the forest stands border the great prairie area which extends into Washington and Oregon. They are predominately composed of ponderosa pine. Due primarily to the absence of white pine, which has been the "piece de resistance" of the north Idaho lumber industry for the past 38 years or so, timber exploitation has been at a more moderate rate than in some of the other counties. This, plus the fact that the ponderosa pine and its associates have proven more fire resistant than the thinner bark trees of the white pine areas, accounts for a relatively large acreage of merchantable stands. The Forest Survey reveals a total area of 109,620 acres of forest land, including noncommercial areas (table 2). Fifty-two percent (56,490 acres) contains stands of sawlog size, a considerably greater acreage than that of pole stands (33,313 acres) and seedling and sapling stands (12,184 acres) combined.

Only 482 acres of the timberland are classified as deforested. However, 2,251 acres are classified as recent burns and cutovers, which include areas burned or logged

Fig. 2

CHARACTER OF TIMBERLAND COVER IN ZONES ONE AND TWO - NEZPERCE COUNTY, IDAHO 101,770 ACRES

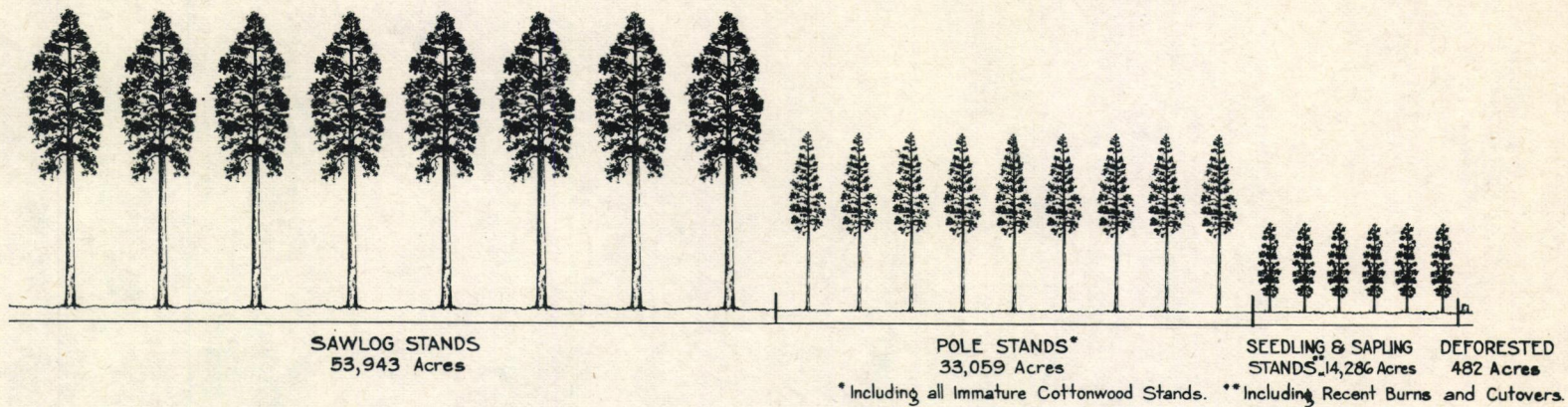
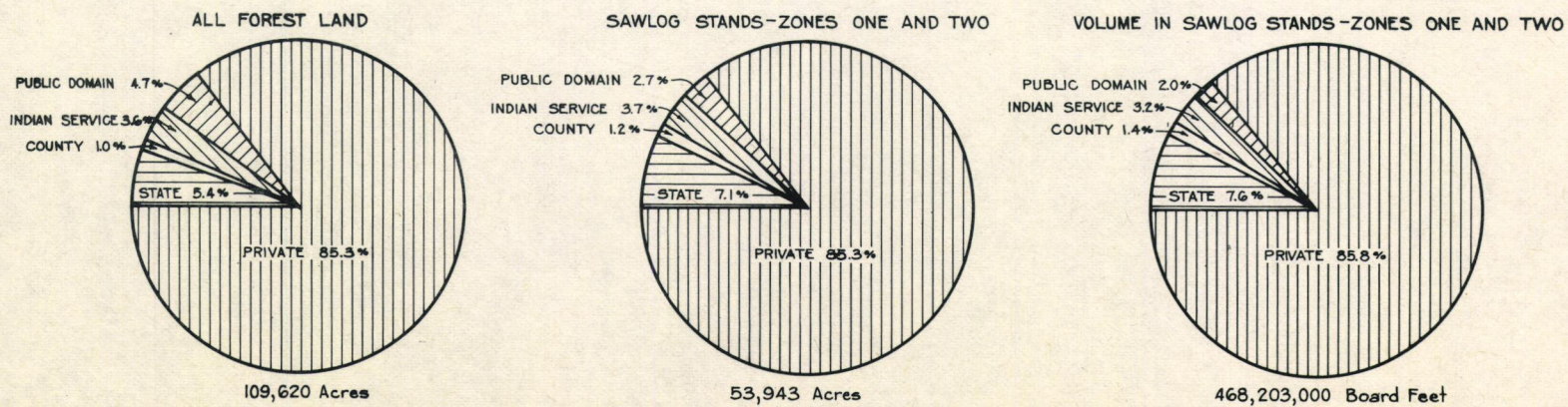


Fig. 3

OWNERSHIP OF FOREST LAND AND TIMBER - NEZPERCE COUNTY, IDAHO



in the last decade or so, upon which very poor stands were left and which have not as yet restocked. The in-between status of these areas makes it difficult to determine whether they will restock their forest growth during the next few years or remain denuded for a considerable period.

The forest lands have been classified into three zones of economic availability. Zone one includes the area now loggable at a profit, and zone three the area definitely and permanently inaccessible from a commercial standpoint. Between these lies zone two, the area which can be profitably logged only if lumber values increase or production costs decrease. The previously itemized timber area (excluding the rocky noncommercial) is divided into zones as follows:

| | |
|------------|--------------------|
| Zone one | 90,268 acres |
| Zone two | 11,502 acres |
| Zone three | <u>2,950 acres</u> |
| Total | 104,720 acres |

In addition to this zone three area, there are 4,900 acres of rocky noncommercial stands, making a total area of 7,850 acres in this county considered unsuitable for commercial timber utilization.

Zoning means less locally, however, than in the timber areas elsewhere in north Idaho. The utilization of sawlog stands, owned in small parcels by many persons, is controlled by individual needs for timber products or ready cash without much attention to book profits.

Turning to the 104,238 acres classified as producing timberland in table 2 (excluding the deforested area) it may be noted that 79 percent is ponderosa pine forest and 15 percent is larch-Douglas fir and Douglas fir forest. The remaining area is occupied by hemlock-white fir, lodgepole pine, and cottonwood stands.

Past Timber Drain

The total forest area in Nez Perce County prior to the first white settlements was probably a few thousand acres larger than now, as a portion of the forest land has been cleared for crops. This indefinite quantity makes it difficult to estimate the total area which has been logged. However, of the land now classified as forest by the Survey 19 thousand acres have been more or less cut over. The extent of the logging and the nature of the residual stands vary materially. It is apparent that the annual sawlog drain, which during most years has been much less than one-half million board feet, represents but a portion of the annual cutting depletion. Although the Craig Mountain Lumber Company of Winchester has logged in this county to a minor extent, fuelwood and other timber products represent the principal items of drain. In a survey made in 1935, it was estimated that the local consumption of fuelwood amounts to approximately 10 million board feet yearly of which 6 million feet comes from local green timber. The latter figure is twenty-one times larger than the average annual sawlog production for the past 12 years (see table 9).

The nature of this utilization minimizes the importance of any preference for ponderosa pine lumber. In fact, the other species are generally considered to be more desirable as fuelwood. The average yearly timber drain for all products from trees of sawlog size is estimated to be 11 percent larch, 35 percent Douglas fir and 53 percent ponderosa pine, whereas the ratios of these trees in the sawlog inventory of 512,080,000 board feet are 12, 22 and 58 percents respectively.

While these drain figures are based on a short period and the manner of their compilation holds the possibility of some error, it is apparent that the cutting of the various species has been more or less proportional to their representation in the timber stands.

Timber Volumes

The 512 million board feet of sawlog size timber in Nez Perce County may be divided into two classes. About 31 million board feet (table 3) are contained in sawlog trees scattered through young stands, and approximately 481 million feet are contained in the 56 thousand acres of sawlog stands averaging 8,500 board feet per acre. The sawlog stands vary somewhat in density according to timber types. The average volume per acre in sawlog stands in each of the timber types is shown in the following tabulation:

| | | | | |
|-----------------------|--------|------------|----------|-------------|
| All timber types | 8,500 | board feet | per acre | all species |
| Ponderosa pine type | 8,450 | " | " | " |
| Larch-Douglas fir and | | | | |
| Douglas fir types | 8,450 | " | " | " |
| Other types | 11,800 | " | " | " |

Forest Ownership

Little more need be said concerning the forest land ownership than is shown in figure 3 of this report. Over 85 percent of the land and timber is held by many private owners, mostly in very small blocks. There is no National Forest land. State, county, Indian Service, and public domain represent the other forms of proprietorship.

Dependent Population

The supporting incomes for the eighteen thousand persons in Nez Perce County are derived from three principal sources: local agriculture, local lumbering, and trade from the outside area tributary to Lewiston.

The 1930 census reported 1,309 farms in this county and 2,046 gainful workers whose principal occupation was farming. Another 106 persons were engaged in food and allied industries (flour mills, canning factories, etc.), raising the total agricultural workers to 2,152 persons. The county shared to a small extent in the recent general influx of drought region farmers into north Idaho with the result that there were 1,390 farms in 1935, according to census figures. No record of employment is available for this latter year, but on a proportional basis there were probably about 2,280 workers engaged in this industry.

Forest industry occupies a secondary position. In 1930, of the 6,700 residents gainfully occupied only 59 were listed under "Forestry and Fishing" which group includes principally those engaged in logging and forest administration

and protection work. Workers in the lumber and furniture industry totaled 636 persons. This group was primarily composed of the employees of the Clearwater Unit of the Potlatch Forests Incorporated. The figures indicate that three times as many county residents were employed in agriculture as in forest industry. However, they do not show the full importance of the large mill as an employing agency. In the statistics for Asotin County, just across the state line in Washington, it is noted that, in 1930, 309 workers received chief employment in saw and planing mills. Inasmuch as there was no mill capacity in Asotin County sufficient to employ anything approaching this number, it is apparent that these were largely workers in the Lewiston mill. This situation is accounted for in the fact that, although separated by the Snake River and the state line, Clarkston, Washington, and Lewiston, Idaho, are in reality a single community.

Although the total amount of work in the sawmill was less in 1936 than in 1929, as is indicated by production figures, it is probable that the number of workers depending upon this industry was nearly the same, the decline being shared more or less by all in the form of fewer work days and lower total incomes.

Lewiston is the largest city in northern Idaho. Together with Clarkston, it forms the principal trade center for a large area in Washington and Idaho. By their nature, the trade and other secondary industry can be divided into

two categories. First, there is the portion dependent upon the income derived from local basic industry and local workers. Secondly, there is the portion supported by wealth produced outside the county. To the extent which local agriculture supports the secondary enterprise (the doctor, grocer, druggist, wholesaler, etc.), that portion of the secondary enterprise may, as it does not produce any new wealth, be considered as an indirect dependent upon agriculture. There is the same extent of indirect dependency upon lumbering and other basic industry. However, such secondary industry as exists by virtue of outside income is just as much a primary industry from a purely local viewpoint as either agriculture or lumbering. Sidestepping the intricacies that befog such a calculation, it is estimated, breaking down 1930 census data, that agriculture directly and indirectly provided income for 50 percent of the population, lumbering for 16 percent, outside trade for 24 percent, and minor basic industries for 10 percent.

Conclusion

The forest management problem is most certainly not "a mere matter of simple arithmetic". This is particularly true of forest areas in agricultural localities, where the cutting methods vary between clean removal and perennial "nibbling". Realizing this, the forest stands of Nez Perce County are plotted, for comparative purposes, in figure 4, against the minimum requirements for a 160 year rotation. The diagram is based on a policy of clearcutting in which

Fig. 4
**ACTUAL AND DESIRABLE DISTRIBUTION OF AGE CLASSES IN TIMBERLANDS
 ZONES ONE AND TWO—NEZPERCE COUNTY, IDAHO
 101,291 ACRES***

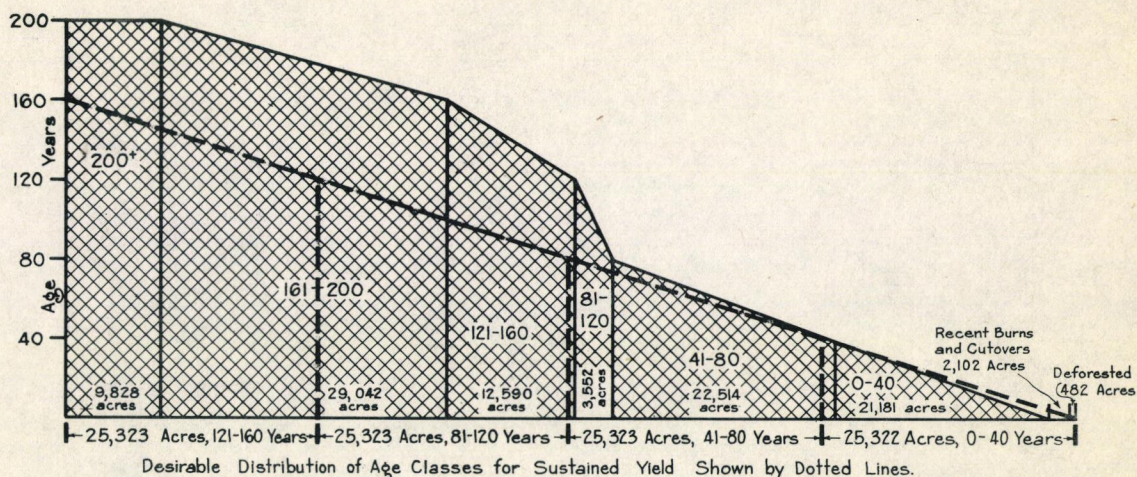


Fig. 5
**VOLUME IN TIMBER STANDS BY SPECIES
 NEZPERCE COUNTY, IDAHO**

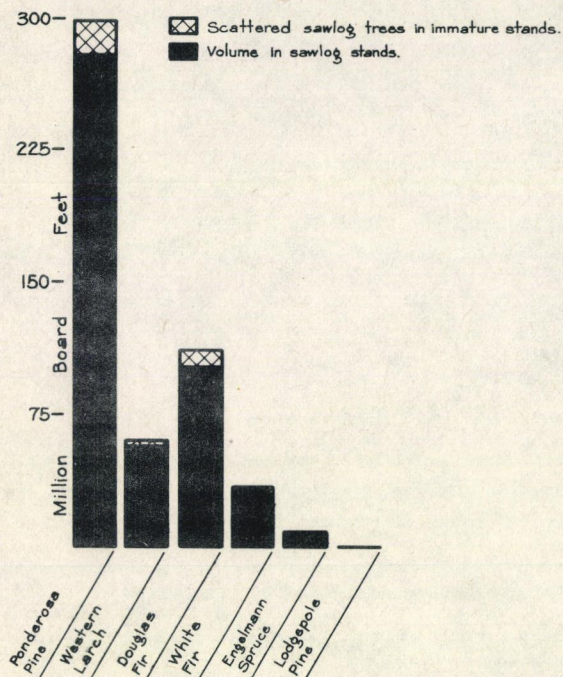
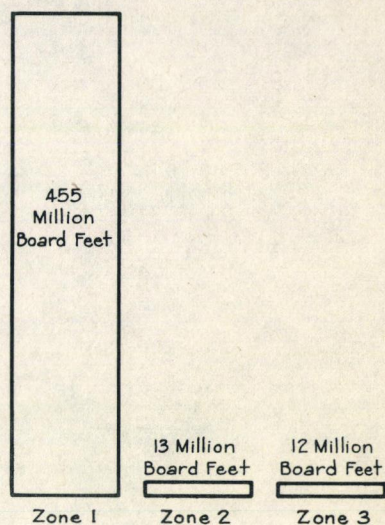


Fig. 6
**VOLUME IN SAWLOG STANDS BY ZONES
 NEZPERCE COUNTY, IDAHO**



FOR DEFINITION OF ZONES - SEE GLOSSARY

one one-hundred-sixtieth of the timber area is logged each year, to be logged again in 160 years when the stands cut now again reach maturity, and so on. That clear cutting has not been the practice in the past is indicated by the fact that the average cut-over area has a residual stand now about 70 years old. Also, this rotation period may prove to be longer than desirable. However, this diagram is presented as evidence of the fact that the stand distribution is much more satisfactory in Nez Perce County than in the majority of the northern Idaho counties.

Forestry is fostered by two motives: the desire to continue the beneficial influences of the forest stands and the desire to secure the greatest social benefit in the utilization of these stands. For northern Idaho in general the greatest social benefit is synonymous with a stabilized lumber industry--an industry within the limits of the productive capacity of the forest land and one so balanced as to provide the maximum of permanent employment, income, and well-being for the communities of northern Idaho. In the case of the white pine forests of the Clearwater, which support Nez Perce County's lumber manufacturing industry, this latter objective as stated is without doubt a major one. For the local forests of Nez Perce County, however, the aims are somewhat different. Here the industry dependent upon the local timber is an incidental means to an end rather than an objective in itself. The requirements of the immediate vicinity for the various timber products are sufficient to claim the larger share of a sustainable

production. Moreover, the employment offered from such a stabilized timber cut is insignificant as a factor in the economic structure of the county. The primary worth of these forest acres lies in their ability to produce a continuous supply of the timber products vital to the welfare of local agriculture, and in their beneficial functions of water retardation and erosion control.

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Designed to meet the many and varied needs for information, a wealth of data is at hand for each county. In this publication, it has been necessary to sacrifice some of the detail to brevity, and consequently the information herein is generalized into the more important classifications. Subsequent reports for the economic unit, of which Nez Perce County is a part, will cover the material in more detail, going much farther than this preliminary analysis in making interpretations based on various economic considerations.

To facilitate the most intelligent use of the tables in this publication, the methods followed and the types, terms and classifications used in collecting and presenting

these data are described in a supplementary report.^{2/}

Brief definitions of the more important of these are contained in the glossary.

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INVENTORY PHASE --NEZ PERCE COUNTY, IDAHO

P. D. Kemp and G. M. DeJarnette, in Charge

| <u>Type Mapping</u> | <u>Check Cruising</u> | <u>Compilation</u> |
|---------------------|-----------------------|--------------------|
| T. Rowland | P. N. Pratt | O. B. Johnson |
| J. M. Honeywell | E. G. Rutquist | J. J. McHugh |
| E. G. Rutquist | J. M. Honeywell | W. L. Royer |
| J. L. Frykman | G. Rubedew | H. J. Pissot |
| G. T. Cornell | L. H. DeGroote | M. E. Metcalf |
| B. A. Dodge | G. N. Allman | F. Hughes |
| W. W. Ensign | | |
| O. B. Johnson | | |
| E. R. Marks | | |

Report writing--S. B. Hutchison

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The figures in this report are preliminary and subject to correction in future releases.

^{2/} Forest Survey Release No. 3. The Inventory Phase of the Forest Survey for the Northern Rocky Mountain Region--A Definition of the Procedure, Terms, and Classifications.

Table 2 CLASSIFICATION OF FOREST LAND TYPES ACCORDING TO OWNERSHIP, ZONE AND SIZE CLASS
NEZ PERCE COUNTY, IDAHO

| Forest type | Zone | Area in Acres | | | | | | | | | | | |
|-------------------------------|-------|---------------|--------|---|--------|----------|------|---|-------|--------|------|---|-------|
| | | Private | | | | State 1/ | | | | County | | | |
| | | Sawlog | Pole | Seedling:Recent and :Burns and: Sapling :Outovers : | Total | Sawlog | Pole | Seedling:Recent and :Burns and: Sapling :Outovers : | Total | Sawlog | Pole | Seedling:Recent and :Burns and: Sapling :Outovers : | Total |
| Ponderosa pine-pure | 1 | 12,837 | 10,099 | 285 | 23,221 | 862 | 66 | 43 | 971 | 152 | : | : | 152 |
| | 2 | 1,125 | 309 | 143 | 1,577 | 17 | : | : | 17 | : | : | : | : |
| | 3 | 466 | : | : | 466 | : | : | : | : | : | : | : | : |
| | Total | 14,428 | 10,408 | 428 | 25,264 | 879 | 66 | 43 | 988 | 152 | : | : | 152 |
| Ponderosa pine-mixed | 1 | 23,046 | 10,898 | 2,400 | 36,411 | 2,493 | 327 | 126 | 3,061 | 433 | 31 | : | 464 |
| | 2 | 789 | 3,822 | 419 | 5,625 | 72 | 454 | 51 | 587 | 5 | : | 5 | 5 |
| | 3 | 1,514 | 194 | 58 | 1,846 | : | : | : | : | 236 | : | : | 236 |
| | Total | 25,449 | 14,914 | 2,819 | 43,882 | 2,565 | 781 | 177 | 3,548 | 671 | 31 | 5 | 707 |
| Ponderosa pine-Total | 1 | 35,883 | 20,997 | 2,685 | 59,565 | 3,355 | 393 | 169 | 4,032 | 585 | 31 | : | 616 |
| | 2 | 1,914 | 4,131 | 562 | 7,202 | 89 | 454 | 51 | 604 | 5 | : | 5 | 5 |
| | 3 | 2,080 | 194 | : | 2,312 | 38 | : | : | 38 | 236 | : | : | 236 |
| | Total | 39,877 | 25,322 | 3,247 | 69,146 | 3,444 | 847 | 220 | 4,636 | 823 | 31 | 5 | 858 |
| Larch-Douglas fir | 1 | 6,785 | 1,637 | 1,974 | 10,627 | 315 | 22 | 49 | 405 | 80 | 9 | : | 89 |
| | 2 | 178 | 243 | : | 636 | : | : | : | : | : | : | : | : |
| | Total | 6,963 | 1,880 | 2,097 | 11,265 | 315 | 22 | 49 | 405 | 80 | 9 | : | 89 |
| Hemlock-white fir | 1 | 613 | 1,052 | 67 | 1,732 | 40 | : | : | 40 | : | : | : | : |
| Douglas fir | 1 | 426 | 568 | 884 | 1,878 | 46 | 29 | : | 89 | : | : | : | : |
| | 2 | 154 | 377 | 192 | 723 | : | : | : | : | 19 | 8 | : | 27 |
| | 3 | : | 60 | : | 60 | : | : | : | : | : | : | : | : |
| | Total | 580 | 1,005 | 1,076 | 2,661 | 46 | 29 | : | 89 | 19 | 8 | : | 27 |
| Lodgepole pine | 1 | 56 | 591 | 2,896 | 4,026 | : | : | 471 | 471 | : | : | : | : |
| Cottonwood 2/ | 1 | : | 464 | : | 464 | : | : | 15 | 15 | : | : | : | : |
| Total Producing Timberland | 1 | 43,763 | 25,309 | 3,406 | 72,478 | 3,755 | 459 | 669 | 4,883 | 665 | 40 | : | 705 |
| | 2 | 2,940 | 4,701 | 977 | 8,618 | 89 | 454 | 51 | 1,004 | 5 | 32 | : | 37 |
| | 3 | 2,980 | 254 | : | 3,234 | : | : | : | : | 236 | : | : | 236 |
| | Total | 49,683 | 30,314 | 4,383 | 84,380 | 3,844 | 913 | 740 | 5,893 | 903 | 59 | 8 | 975 |
| Nonrestocked Old Outovers | 1 | : | : | : | 475 | : | : | : | : | : | : | : | : |
| Total Timberland | 1 | : | : | : | 76,854 | : | : | : | 5,052 | : | : | : | 705 |
| | 2 | : | : | : | 8,563 | : | : | : | 604 | : | : | : | 32 |
| | 3 | : | : | : | 2,972 | : | : | : | 236 | : | : | : | 236 |
| | Total | : | : | : | 88,389 | : | : | : | 5,892 | : | : | : | 975 |
| Becky Noncommercial | 1 | : | : | : | 508 | : | : | : | 75 | : | : | : | 120 |
| | 2 | : | : | : | 1,042 | : | : | : | 138 | : | : | : | 138 |
| | 3 | : | : | : | 2,125 | : | : | : | 113 | : | : | : | 236 |
| | Total | : | : | : | 3,675 | : | : | : | 326 | : | : | : | 494 |
| GROSS FOREST AREA | 1 | : | : | : | 79,322 | : | : | : | 5,127 | : | : | : | 705 |
| | 2 | : | : | : | 9,605 | : | : | : | 742 | : | : | : | 32 |
| | 3 | : | : | : | 4,497 | : | : | : | 113 | : | : | : | 236 |
| | Total | : | : | : | 93,424 | : | : | : | 5,982 | : | : | : | 975 |

1/ Available for conversion.
2/ All immature cottonwood stands are grouped in one class.

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Table 3. TOTAL VOLUME OF SAWTIMBER BY TYPE OF STAND, SPECIES AND OWNERSHIP
NEZ PERCE COUNTY, IDAHO

| Ownership class | Volume by species- Thousand board feet net log scale (Scribner Dec. C) ^{1/} | | | | | | |
|---|---|---------------|-------------|-----------|------------------|----------------|---------|
| | Ponderosa pine | Western larch | Douglas fir | White fir | Engelmann spruce | Lodgepole pine | Total |
| Sawlog stands (all zones) | | | | | | | |
| Private | 232,217 | 52,299 | 89,658 | 30,011 | 7,162 | 290 | 411,637 |
| State | 21,026 | 4,573 | 7,454 | 2,296 | 383 | | 35,732 |
| County | 4,755 | 890 | 2,071 | 164 | | | 7,880 |
| Indian Service | 13,714 | 117 | 715 | 357 | | | 14,903 |
| Public Domain | 6,271 | 1,293 | 2,397 | 347 | 144 | | 10,452 |
| Total | 277,983 | 59,172 | 102,295 | 33,175 | 7,689 | 290 | 480,604 |
| Scattered sawlog trees in immature stands ^{2/} (all zones) | | | | | | | |
| Private | 18,674 | 2,224 | 7,894 | 889 | 21 | 9 | 29,711 |
| State | 394 | | 33 | | | | 427 |
| County | | 3 | 33 | | | | 36 |
| Indian Service | 337 | | 15 | | | | 352 |
| Public Domain | 608 | 6 | 336 | | | | 950 |
| Total | 20,013 | 2,233 | 8,311 | 889 | 21 | 9 | 31,476 |
| Grand total | 297,996 | 61,405 | 110,606 | 34,064 | 7,710 | 299 | 512,080 |

^{1/} Western red cedar and black cottonwood occur in negligible quantities.

Data as of January 1938

^{2/} Includes 830 M board feet on deforested and recently burned areas.

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Table 4 VOLUME OF SAWTIMBER IN SAWLOG STANDS BY ZONE, OWNERSHIP AND SPECIES
NEZ PERCE COUNTY, IDAHO

| Ownership Class | Volume by species - thousand board feet net log scale (Scribner Dec. C) ^{1/} | | | | | | |
|--------------------|---|------------------|----------------|--------------|---------------------|-------------------|---------|
| | Ponderosa pine | Western larch | Douglas fir | White fir | Engelmann spruce | Lodgepole pine | Total |
| Zone 1 | | | | | | | |
| Private | 220,650 | 50,227 | 82,586 | 29,435 | 7,116 | 290 | 390,304 |
| State | 20,840 | 4,573 | 7,301 | 2,296 | 383 | | 35,393 |
| County | 4,279 | 652 | 1,595 | 164 | | | 6,690 |
| Indian Service | 13,714 | 117 | 715 | 357 | | | 14,903 |
| Public Domain | 4,876 | 961 | 1,241 | 303 | 144 | | 7,525 |
| Total | 264,359 | 56,530 | 93,438 | 32,555 | 7,643 | 290 | 454,815 |
| Zone 2 | | | | | | | |
| Private | 6,824 | 458 | 3,404 | 540 | 46 | | 11,272 |
| State | 186 | | 153 | | | | 339 |
| Public Domain | 929 | 105 | 700 | 43 | | | 1,777 |
| Total | 7,939 | 563 | 4,257 | 583 | 46 | | 13,388 |
| Zone 3 | | | | | | | |
| Private | 4,743 | 1,614 | 3,668 | 36 | | | 10,061 |
| County | 476 | 238 | 476 | | | | 1,190 |
| Public Domain | 466 | 227 | 456 | 1 | | | 1,150 |
| Total | 5,685 | 2,079 | 4,600 | 37 | | | 12,401 |
| Grand Total | 277,983 | 59,172 | 102,295 | 33,175 | 7,689 | 290 | 480,604 |

^{1/} Western red cedar and black cottonwood occur in negligible quantities.

Data as of January 1, 1938.

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Table 5. VOLUME OF SAWTIMBER IN SAWLOG STANDS BY TYPE, ZONE AND SPECIES
NEZ PERCE COUNTY, IDAHO

| Ownership Class | Volume by species - thousand board feet net log scale (Scribner Dec. C) ^{1/} | | | | | | |
|----------------------|---|------------------|----------------|--------------|---------------------|-------------------|---------|
| | Ponderosa pine | Western larch | Douglas fir | White fir | Engelmann spruce | Lodgepole pine | Total |
| Zone 1 | | | | | | | |
| Ponderosa pine-pure | 121,013 | 5,105 | 8,472 | 1,296 | 301 | | 136,187 |
| Ponderosa pine-mixed | 135,235 | 30,574 | 57,537 | 16,129 | 3,966 | | 243,441 |
| Larch-Douglas fir | 7,102 | 20,464 | 24,024 | 9,934 | 2,638 | 183 | 64,345 |
| Hemlock-white fir | 716 | 348 | 1,755 | 4,792 | 564 | | 8,175 |
| Douglas fir | 293 | | 1,628 | 370 | 174 | | 2,465 |
| Lodgepole pine | | 39 | 22 | 34 | | 107 | 202 |
| Total | 264,359 | 56,530 | 93,438 | 32,555 | 7,643 | 290 | 454,815 |
| Zone 2 | | | | | | | |
| Ponderosa pine-pure | 4,613 | | 690 | 77 | | | 5,380 |
| Ponderosa pine-mixed | 3,050 | 297 | 2,511 | 324 | | | 6,182 |
| Larch-Douglas fir | 133 | 266 | 483 | 182 | 46 | | 1,110 |
| Douglas fir | 143 | | 573 | | | | 716 |
| Total | 7,939 | 563 | 4,257 | 583 | 46 | | 13,388 |
| Zone 3 | | | | | | | |
| Ponderosa pine-pure | 1,527 | | 442 | 37 | | | 2,006 |
| Ponderosa pine-mixed | 4,158 | 2,079 | 4,158 | | | | 10,395 |
| Total | 5,685 | 2,079 | 4,600 | 37 | | | 12,401 |
| Grand Total | 277,983 | 59,172 | 102,295 | 33,175 | 7,689 | 290 | 480,604 |

^{1/} Western red cedar and black cottonwood occur in negligible quantities.

Data as of January 1, 1938

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Table 6. CLASSIFICATION OF NONSAWLOG IMMATURE TIMBER TYPES
ACCORDING TO DENSITY OF STOCKING

NEZ PERCE COUNTY, IDAHO

| Timber ^{1/} Type | Pole | | | | | | | |
|------------------------------|----------------------------------|-----|----------------|-----|----------------|----|--------|-----|
| | Well Stocked | | Medium Stocked | | Poorly Stocked | | Total | |
| | Acres | % | Acres | % | Acres | % | Acres | % |
| Ponderosa pine-pure | 6,024 | 56 | 3,038 | 28 | 1,742 | 16 | 10,804 | 100 |
| Ponderosa pine-mixed | 10,780 | 63 | 5,555 | 32 | 791 | 5 | 17,126 | 100 |
| Larch-Douglas fir | 1,863 | 95 | 97 | 5 | | | 1,960 | 100 |
| Hemlock-white fir | 623 | 59 | 96 | 9 | 333 | 32 | 1,052 | 100 |
| Douglas fir | 430 | 33 | 871 | 67 | | | 1,301 | 100 |
| Lodgepole pine | 591 | 100 | | | | | 591 | 100 |
| Total | 20,311 | 62 | 9,657 | 29 | 2,866 | 9 | 32,834 | 100 |
| | | | | | | | | |
| Timber ^{1/} Type | Seedling and Sapling | | | | | | | |
| | Well Stocked | | Medium Stocked | | Poorly Stocked | | Total | |
| | Acres | % | Acres | % | Acres | % | Acres | % |
| Ponderosa pine-pure | 879 | 65 | 191 | 14 | 276 | 21 | 1,346 | 100 |
| Ponderosa pine-mixed | 1,435 | 37 | 2,279 | 59 | 133 | 4 | 3,847 | 100 |
| Larch-Douglas fir | 923 | 39 | 1,464 | 61 | | | 2,387 | 100 |
| Hemlock-white fir | | | 67 | 100 | | | 67 | 100 |
| Douglas fir | 870 | 74 | 300 | 26 | | | 1,170 | 100 |
| Lodgepole pine | 2,550 | 76 | 817 | 24 | | | 3,367 | 100 |
| Total | 6,657 | 55 | 5,118 | 42 | 409 | 3 | 12,184 | 100 |
| | | | | | | | | |
| Timber ^{1/} Type | Total Pole, Seedling and Sapling | | | | | | | |
| | Well Stocked | | Medium Stocked | | Poorly Stocked | | Total | |
| | Acres | % | Acres | % | Acres | % | Acres | % |
| Ponderosa pine-pure | 6,903 | 57 | 3,229 | 26 | 2,018 | 17 | 12,150 | 100 |
| Ponderosa pine-mixed | 12,215 | 58 | 7,834 | 37 | 924 | 5 | 20,973 | 100 |
| Larch-Douglas fir | 2,786 | 64 | 1,561 | 36 | | | 4,347 | 100 |
| Hemlock-white fir | 623 | 56 | 163 | 14 | 333 | 30 | 1,119 | 100 |
| Douglas fir | 1,300 | 53 | 1,171 | 47 | | | 2,471 | 100 |
| Lodgepole pine | 3,141 | 79 | 817 | 21 | | | 3,958 | 100 |
| Total | 26,968 | 60 | 14,775 | 33 | 3,275 | 7 | 45,018 | 100 |

^{1/} The cottonwood type is not classified as to stocking. Data as of January 1, 1938

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Table 7 CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND SITE QUALITY
NEZ PERCE COUNTY, IDAHO

| Timber ^{1/} Type | Area in Acres Site Number | | | | | Total Area | Average Site |
|------------------------------|------------------------------|-------|--------|--------|-------|---------------|-----------------|
| | I | II | III | IV | V | | |
| Ponderosa pine-pure | | 1,010 | 11,983 | 16,869 | | 29,862 | III and IV |
| Ponderosa pine-mixed | | 341 | 19,332 | 31,252 | | 50,925 | III and IV |
| Larch-Douglas fir | | 151 | 6,605 | 3,189 | 1,868 | 11,813 | III and IV |
| Hemlock-white fir | | | 1,144 | 628 | | 1,772 | III and IV |
| Douglas fir | | | 80 | 459 | 2,583 | 3,122 | V |
| Lodgepole pine | | | 4,014 | | | 4,014 | III |
| Total | | 1,502 | 43,158 | 52,397 | 4,451 | 101,508 | |

^{1/}The cottonwood type is not classified as to site.

Data as of January 1, 1938

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Table 8 CLASSIFICATION OF STOCKED TIMBERLANDS ACCORDING TO TYPE AND AGE CLASS
ZONES ONE AND TWO
NEZ PERCE COUNTY, IDAHO

| Area in Acres | | | | | | | |
|------------------------------|-------------------|--------|--------|---------|---------|-------|--------|
| Timber ^{1/} Type | Age class - years | | | | | | Total |
| | 0-40 | 41-80 | 81-120 | 121-160 | 161-200 | 200+ | |
| Ponderosa pine-pure | 3,873 | 8,277 | 802 | 5,078 | 8,376 | 2,988 | 29,394 |
| Ponderosa pine-mixed | 10,151 | 10,568 | 759 | 4,888 | 16,056 | 6,230 | 48,652 |
| Larch-Douglas fir | 2,387 | 951 | 1,812 | 2,346 | 3,870 | 447 | 11,813 |
| Hemlock-white fir | 67 | 1,052 | | 93 | 397 | 163 | 1,772 |
| Douglas fir | 1,336 | 1,075 | 179 | 185 | 287 | | 3,062 |
| Lodgepole pine | 3,367 | 591 | | | 56 | | 4,014 |
| Total | 21,181 | 22,514 | 3,552 | 12,590 | 29,042 | 9,828 | 98,707 |

^{1/}The cottonwood type is not classified as to age.

Data as of January 1, 1938

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Table 9. AVERAGE ANNUAL CUTTING DEPLETION FROM THE GREEN TIMBER RESOURCES BY
TREE SIZE, SPECIES AND PRODUCTS
NEZ PERCE COUNTY, IDAHO

| Product | Ponderosa pine | Larch | Douglas fir | White fir | Engelmann spruce | Cotton- wood | Total |
|---|-------------------|--------|----------------|--------------|---------------------|-----------------|---------|
| From trees of sawtimber size (thousand board feet, Scribner Dec. C, log scale) | | | | | | | |
| Sawlogs ^{1/} | 204 | 31 | 40 | 8 | 5 | | 288 |
| Fuelwood ^{2/} | 2,824 | 620 | 1,963 | | | 46 | 5,453 |
| Total | 3,028 | 651 | 2,003 | 8 | 5 | 46 | 5,741 |
| From trees of less than sawtimber size (cubic feet) | | | | | | | |
| Fuelwood ^{2/} | | 26,660 | 78,518 | | | 8,772 | 113,950 |
| Fence posts ^{2/} | | | 335 | | | | 335 |
| Total | | 26,660 | 78,853 | | | 8,772 | 114,285 |

^{1/} 1925-1936 inclusive.

^{2/} From a special survey in 1935.

Glossary

NONFOREST LAND TYPES

Townsites - includes both incorporated and unincorporated urban settlements.

Cultivated - areas cleared and/or cultivated for agricultural use, including pasture.

Stump pasture - logged off or burned off lands, part of operating farm units, now chiefly devoted to grazing and from which stumps or snags have not been removed.

Barrens - areas too rocky, too scanty as to soil, or too exposed, to support a vegetative cover of either trees, shrubs, or herbs.

Grass - areas such as parks, mountain meadows, or treeless ridges, whose principal vegetation is grass and herbs.

Brush - areas whose principal vegetation is sagebrush, brush, or shrubs as a permanent type.

FOREST LAND TYPES

Timberland - forest areas capable of producing trees of commercial species and quality.

Producing timberland - timberland areas containing forest growth, or if not, which have been denuded since 1925.

Deforested timberland - nonrestocked old burns or cut-overs denuded prior to 1925.

Subalpine - stands above the altitude range of merchantability.

Rocky noncommercial - areas too steep, sterile, or rocky to produce merchantable timber.

Sawlog stands - timber stands containing 3 thousand board feet per acre for the ponderosa pine and lodgepole pine types or 4 thousand board feet for the other types, except cottonwood, in trees of sawlog size. The cottonwood type has no minimum limit. The minimum size classes for sawlog trees are: white pine, ponderosa pine, lodgepole pine - 12 inches, cedar - 24 inches, and other species - 14 inches (diameter breast high).

Merchantable pole stands - cedar or cedar-white fir stands containing 8 or more commercial cedar poles to the acre (12 to 24 inches diameter breast high).

Other pole stands - timber stands in which the majority of the dominant trees are between 6 inches and merchantable size.

Seedling or sapling stands - timber stands in which the majority of the dominant trees are less than 6 inches.

Recent burns and cut-overs - areas cut or burned since 1925 for which sufficient time has not elapsed to allow classification into one of the other timber types.

Reserved areas - includes publicly owned forest lands not available for conversion into timber products but reserved for parks, primitive areas, protection of municipal watersheds, etc.

Zones - Zone One includes areas loggable under present conditions.

Zone Two includes areas loggable with increased stumpage values.

Zone Three includes areas of no probable value for timber production.

Site class - the index of the productivity of an area for growing forests. There are 5 or 6 site classes with the best sites numbered one, the next best two, etc.

Stocking - in young timber stands stocking is the measure of the extent to which an area is covered with forest growth. The degrees of stocking are:

| | |
|------------------------------|------------------|
| Less than 10 percent stocked | = unstocked |
| 10 to 39 percent stocked | = poorly stocked |
| 40 to 69 percent stocked | = medium stocked |
| 70 to 100 percent stocked | = well stocked |

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AUTHOR Forest Survey Release No. 12-Nor.Rocky
Mt. For. and Range Exp. Station
TITLE Forest Statistics-Nez Perce County, Idaho

From the Inventory Phase of the Forest Survey

By Forest Survey Staff M. Bradner Regional Director

